

AMENDMENTS TO THE SPECIFICATION

1. Please replace the paragraph on lines 20-21 of page 8 of the original specification with the following replacement paragraph, where changes made are shown.

~~Fig. 3 is a set of~~ Figs. 3a, 3b, 3c, and 3d are examples illustrating the utility of several merging parameters in accordance with an embodiment of the invention.

2. Please replace the paragraph on lines 9-30 of page 15 of the original specification with the following replacement paragraph, where changes made are shown.

The system selects a candidate segment and a neighboring segment and considers certain pair statistics, or merging parameters. These merging parameters include one or more items selected from the group consisting of the difference in mean (or median) color, the ratio of color variances, boundary gradient, common boundary length, total boundary length of the candidate segment, area of the candidate segment, and area of the neighboring segment. The importance of several of these merging parameters is illustrated in the examples in Figs. 3a, 3b, 3c, and 3d. Four pairs of contiguous segments are shown. Segments 300 and 302 in Fig. 3a are each of uniform color but their colors are noticeably different. The difference in mean color indicates that these segments should not be merged. Segments 304 and 306 in Fig. 3b have similar mean color, but they differ significantly in texture. While their mean color values will be the same, the difference in their color variances indicates that this pair should not be merged. Segments 308 and 310 in Fig. 3c have approximately the same mean color and color variance. However, the direction of the color fade in the two segments causes a very noticeable color transition locally at their common boundary. The nontrivial gradient along their boundary indicates a sharp edge and thus suggests that the two segments should not be merged. Segments 312 and 314 in Fig. 3d are the same in mean color and variance, and there is no sharp boundary delineating them. These segments are likely to

be part of the same object so they should be merged. In practice, however, whether any of these pairs of segments are merged is determined by which set of merging parameters is used to decide whether they should be merged. These example pairs are not exhaustive but are rather intended to illustrate how several of the merging parameters may be used to distinguish between segments that may otherwise appear to be similar.